10

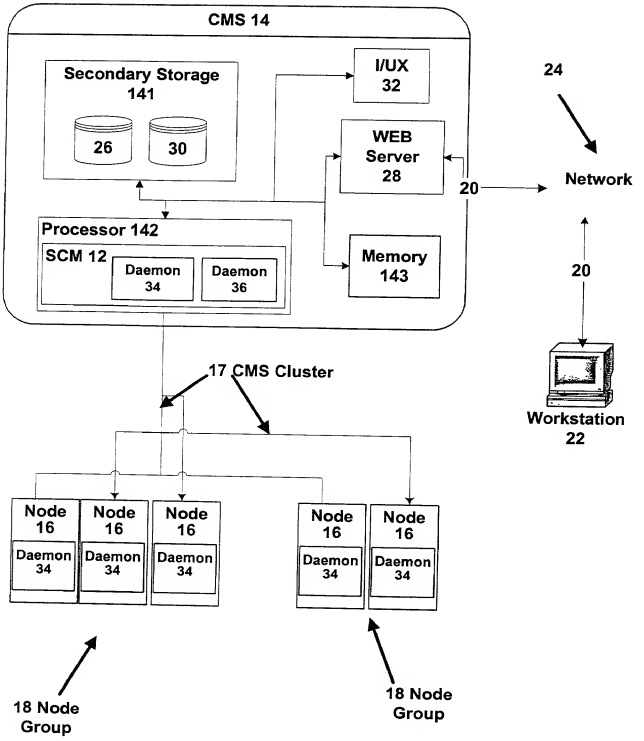
CMS 14
Secondary Storage 141
26
30
I/UX 32
WEB Server 28
Processor 142
SCM 12
Daemon 34
Daemon 36
Memory 143
24
Network
20
20
Workstation 22
17 CMS Cluster
Node 16
Daemon 34
18 Node Group
18 Node Group

FIGURE 1

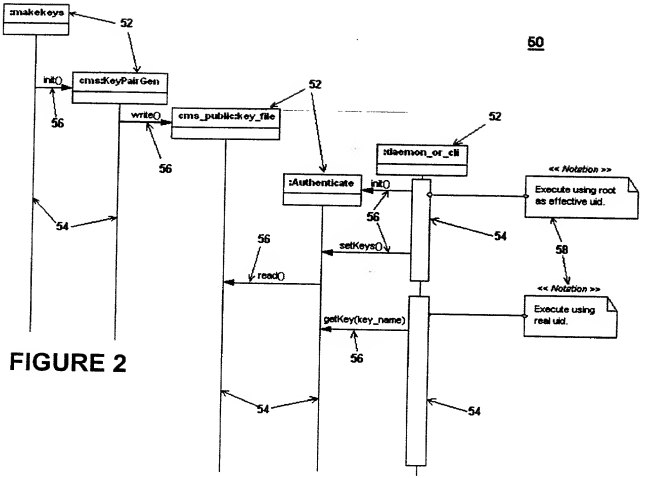
:makekeys
52
50
init()
cms:KeyPairGen
52
write()
cms_publickey_file
52
:daemon_or_cli
56
56
:Authenticate
init()
<< Notation >>
Execute using root as effective uid.
54
56
54
setKeys()
58
56
read()
<< Notation >>
Execute using real uid.
getKey(key_name)
56
54
54

FIGURE 2

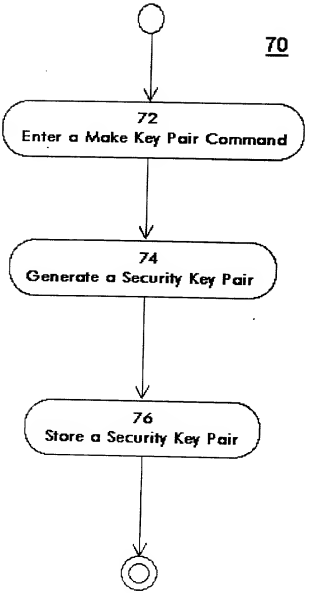
70
72
Enter a Make Key Pair Command
74
Generate a Security Key Pair
76
Store a Security Key Pair

FIGURE 3

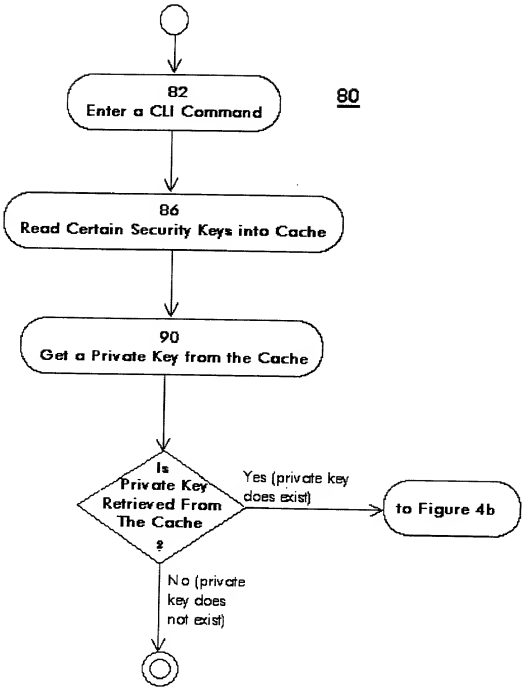
82
Enter a CLI Command
80
86
Read Certain Security Keys into Cache
90
Get a Private Key from the Cache
Is Private Key Retrieved From The Cache ?
Yes (private key does exist)
to Figure 4b
No (private key does not exist)

FIGURE 4a

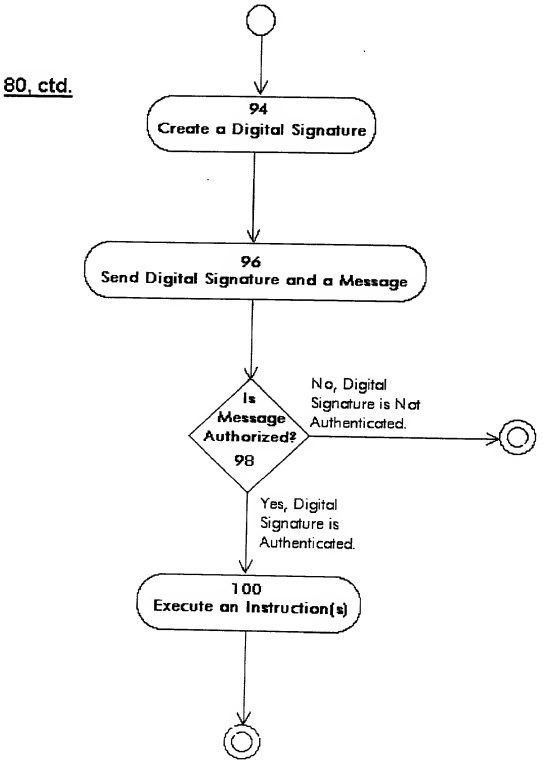
80, ctd.
94
Create a Digital Signature
96
Send Digital Signature and a Message
Is Message Authorized?
98
No, Digital Signature is Not Authenticated.
Yes, Digital Signature is Authenticated.
100
Execute an Instruction(s)

FIGURE 4b